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(54) Title: CHROMATOGRAPHIC SEPARATION OF SUBSTANCES CONTAINED IN A LIQUID SAMPLE

(57) Abstract: A method for the chromatographic separation of substances contained in a liquid sample is disclosed which method comprises providing a one piece separation tray having a spaced array of discrete identical upstanding chambers each exhibiting an open upper end and an open lower end and a separation medium placed in at least part of each upstanding chamber; applying a liquid sample to said open upper end of at least one of said upstanding chambers; then applying an eluting liquid to said open upper end of said at least one of said upstanding chambers; and collecting at least one product fraction flowing out from the open lower end of said at least one of said upstanding chambers; wherein a monolith of a compressible macroporous gel having in its liquid-swollen, non-compressed state a cross-sectional area which is 2-15 %, preferably 4-12 % and most preferably 5-10 %, larger than the cross-sectional area of the upstanding chamber in which it is placed is used as said separation medium and is in face-to-face contact with the wall of the respective chamber in its liquid-swollen state. Processes for the preparation of monoliths to be used in such a method and a separation device for use in said method are also disclosed.